



Report No. PR 211-5

Enclosure (1)

(Unclassified Title)

LOW PRESSURE COMBUSTION INVESTIGATION

Contract No. NOas 59-0117

Marquardt Project No. 211

4 May 1959

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## I. INTRODUCTION

This is the fifth monthly letter progress report on Navy Contract NOas 59-0117 (MAC Project 211) for the period 2 April to 3 May 1959.

The objectives of this program are:

- a. to evaluate combustion performance of a 28-inch diameter ramjet engine operating at combustion pressures less than 6 psia for pentaborane, HiCal-3, SF-1, and hydrocarbon fuels
- b. to evaluate the structural reliability of a full-scale nonmetallic tailpipe and exhaust nozzle
- c. to determine the infrared radiation of the exhaust plume of a 28-inch ramjet engine operating at combustion pressures less than 6 psia with pentaborane, HiCal-3, SF-1, and hydrocarbon fuels.

## II. PROGRAM PROGRESS

All engine and infrared data have been reduced and analyzed. Currently, the final report is in preparation. It is anticipated that this report will be ready for transmittal by 1 June 1959.

## III. ESTIMATED COST TO DATE

The estimated cost, including all commitments, through 3 May 1959 is:

\$87,624.00